

## **THE POWER OF PROCESS MANAGEMENT**

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### **SUMMARY**

This paper shows how one company is using Process Management as its method to embed quality into the culture of the company, to run its business, to optimize systems and to reach its vision. At the heart of Process Management is a five-step method that is applied to each primary process: define, document, measure, manage and improve. The model represents a blend of process and people skills, which include statistical analysis of processes, teamwork, and team styles.

The organization has been divided into ten primary processes, replacing the departmental structure. Instead of department heads, there are primary process managers who are responsible for implementing Process Management as their model for managing all their processes. The Process Leadership Steering Committee (PLSC), composed of the President and his direct reports, oversees Process Management. This team meets monthly to facilitate communication, review performance, identify and address problems, ensure that measures are linked throughout the company, remove constraints in the system and oversee implementation of company-wide initiatives. Information from the PLSC flows through the company via the natural team structure. Everyone is on at least one natural team. This approach has resulted in significant improvements in operational performance, motivation and participation in the quality process.

### **KEY WORDS**

Continuous Improvement  
Measurement  
Process Management

### **INTRODUCTION**

Industrial Distribution Group, a distributor of maintenance, repair, operating and production supplies, started a formal Continuous Quality Improvement process in 1991 in answer to pressure from a major customer. This process was and still is based on two profound bodies of knowledge: motivation and variation. Motivation and variation provide a balance between people and process. Motivation includes teamwork, paradigms, creativity, change, team styles, feedback, and reinforcement. Variation includes common and special causes, control charts, Pareto diagrams, process flow diagrams, fishbone diagrams, histograms, and problem solving models.

Project teams were started. The Quality Leadership Steering Committee (QLSC), composed of a cross-section of associates, was formed to oversee the quality initiative. Progress was made. However, over time, it became evident that something else was needed to move

quality to the next level. The quality process still operated outside the mainstream of the organization. It was not engrained totally into the culture.

It was at this time that we began another fundamental paradigm shift in how we manage our company. This change was Process Management. **The goal of Process Management is to integrate all quality and business processes and to take ownership for fulfilling the vision of the company.**

*Our vision is to be the service company recognized for creating unequalled value for its shareholders and stakeholders through profitable growth and superior return on investment . . . and acknowledged as being integral to the success of our customers, associates and suppliers.*

Process Management:

- Focuses on the management of processes, not departments
- Includes primary, secondary and work (or sub) processes
- Seeks to optimize performance of the entire system
- Ensures processes are standardized
- Ensures measurements support the vision
- Ensures best practices are examined
- Focuses on customer satisfaction
- Ensures continuous improvement and measurable value
- Represents the way the company is managed

Most distributors are organized into functional areas such as sales, purchasing or the warehouse. This is the way most, if not all, wholesaler-distributors manage their businesses. Each function (department) has its own goals and objectives. Despite this structure, companies satisfy their customers through processes, not functions.

A process is a series of activities that produce a product or service. There are many processes within wholesaler-distributor companies. For example, the process of simply taking an order could involve inside sales, customer service, outside sales and purchasing. The key is that processes cut across functions. Effectively managing cross-functional processes is critical to a company's future success.

To address this, departments were replaced with primary processes. Department heads became primary process managers. Each primary process manager was charged with the task of implementing Process Management using the model described below. A process facilitator was assigned to each primary process manager to help with the implementation. The Process Leadership Steering Committee (PLSC) was formed to oversee the implementation of Process Management. The PLSC is composed of the President and his direct reports, the primary process managers. It essentially is the President's natural team and replaces three previous meetings: the QLSC, staff meetings and ISO 9000 management review.

The primary processes, the five-step model, the supporting structure required for successful Process Management implementation, some barriers to success and the results to date are given below.

## PRIMARY PROCESSES

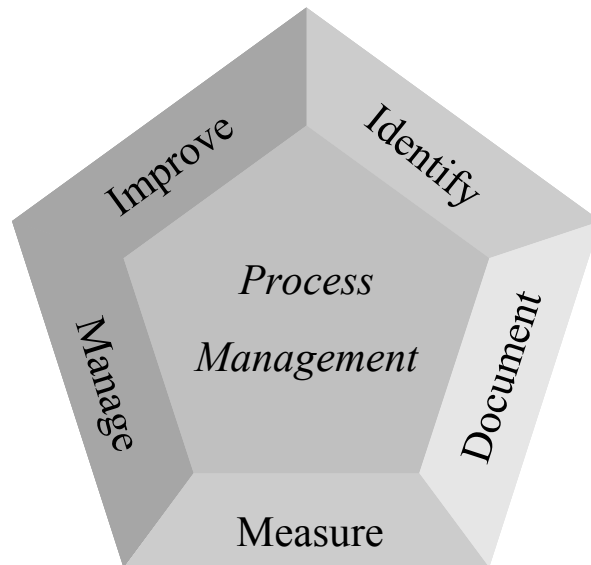
The ten primary processes, along with their secondary processes, are given in Table 1. The primary processes were derived from the thirteen primary processes listed by the International Benchmarking Clearinghouse and Arthur Andersen. The purpose of this list is to serve as a checklist against which companies can compare their own processes to ensure that none were overlooked. Each primary process contained numerous secondary processes. Some of these processes were combined for distribution companies in the 1995 *Facing the Forces of Change: Transforming Your Business with Best Practices* report published by the Distribution Research and Education Foundation.

Each primary process manager determined which secondary processes were present within the primary process. The PLSC approved the list of primary and secondary processes in Table 1.

## METHODOLOGY

Process Management is implemented by using the five-step model shown in Figure 1. The five steps (identify, document, measure, manage and improve) are described below. The most effective way for a process manager to implement these five steps is through the process manager's natural team.

**Figure 1: Process Management**



The first step is to **identify** the primary process. This includes developing the mission of the primary process. The mission represents the purpose of the process; why it exists. The mission statement is usually two to three sentences in length.

There are five general criteria for evaluating a mission statement. These criteria are referred to as the ACORN test:

*Accomplishment:* A mission must be stated as results, not as behaviors or as measures.

*Controllable:* The mission must be under the "control" of the team. The question to ask is "If the team did everything in its power and authority and used all the resources available to it, could the team significantly effect the desired results?" The answer to this question must be yes. The key is that the team must have more influence over the mission than any other team.

*Overall Objective:* The basic question to ask here is "If the results were completely achieved, would anything else be expected?" If the answer is no, then the mission statement represents the team's overall objective.

*Reconcilable:* The basic question to ask here is "If the mission was accomplished perfectly, would the missions of other teams be hampered?" The answer to this question must be no. This ensures that various teams' mission statements are compatible.

*Numbers:* You must be able to measure the mission. This is the only way you can determine whether or not you are fulfilling the mission of the team. If the mission cannot be measured, you must find a new mission statement.

For example, the mission of the Managing Quality Improvement and Change primary process is "to positively impact continuous business improvement through the effective implementation of progressive quality strategies." The mission of the Managing Movement of Inventories and Making Deliveries process is "to provide effective services, accurate shipments and on-time deliveries in order to ensure customer satisfaction by continuously improving our processes."

Once the mission statement is written, the next step is to ensure that it links back to the company vision statement. The customers and suppliers of the primary process and their needs are identified. Last, the secondary processes that make up the primary processes are identified.

The second step is to **document** the processes. The purpose of this step is to develop standard operating procedures and job work instructions (SOPs/JWIs) for the secondary and work processes where necessary. A work process is simply a sub-process of a secondary process. For example, cycle counting could be a work process of the secondary process of "Controlling Inventory" in the Managing Movement of Inventories and Making Deliveries primary process.

All the work processes contained within secondary processes are listed. The team then decides which processes require SOPs/JWIs, develops an action plan to get the procedures written and implements the action plan. As a rule of thumb, a work process should have an SOP/JWI if the team feels that the failure of the process will hurt the quality of the service or product delivered to the customer. Much of this work was done for some processes since the company is ISO9002 registered.

The third step is to **measure** the processes. In order to manage and improve a process, you must be able to measure the process. The measures can be for primary, secondary or work processes. Emphasis is placed on measuring processes in four major areas: quality, timeliness, quantity and cost. For example, in the picking process, two measures are picking accuracy and lines picked per hour. Measures selected for Acquiring Materials and Supplies include stock outs, service level, days to close supplier non-conformances, inventory turns and gross margin return on investment.

The fourth step is to **manage** the processes. This step involves managing both the people and the process. Each measurement should have a "standard." A standard represents at what level the process should be operating. For example, the process standard for picking might be 99.8% accuracy. This is the target -- where we want the process to operate. In manufacturing, the standards are usually specifications from the customer. In service areas, the standards can be specifications from the customers or standards set internally by leadership.

The standards should be possible to achieve. For example, it is not possible in most organizations to achieve 100% on-time delivery. Realistic standards should be set. There should be continual improvement in the standards over time.

Once the standard has been set, the results are monitored over time using a control chart whenever possible. If the process is not consistent and predictable (i.e., the process is out of control), special causes of variation are found and eliminated. Once the process is stable, a process capability analysis is done. If the process is not capable of meeting the standard, it must be improved. This is usually done through a project team.

Measurements and feedback play a key role in motivating associates. This step also includes recognition. Associates are recognized for keeping the process in control and for process improvements. The ASK (attitude, skills and knowledge) process represents the 360 degree associate feedback process that was implemented as part of Process Management. This is described below.

The fifth step is to **improve** the processes. In this step, efforts are undertaken to move the processes to new levels. It starts with developing a vision of what the primary process could be in the future and reaching a consensus on the vision. It helps to ask Joel Barker's "Impossibility Question" here: "What is impossible to do today in this process, but if we could do it would radically transform the way we do business?" From here, the team determines what actions are necessary to move towards the new vision and implements those actions. Benchmarking, creativity and innovation all play a role in this step.

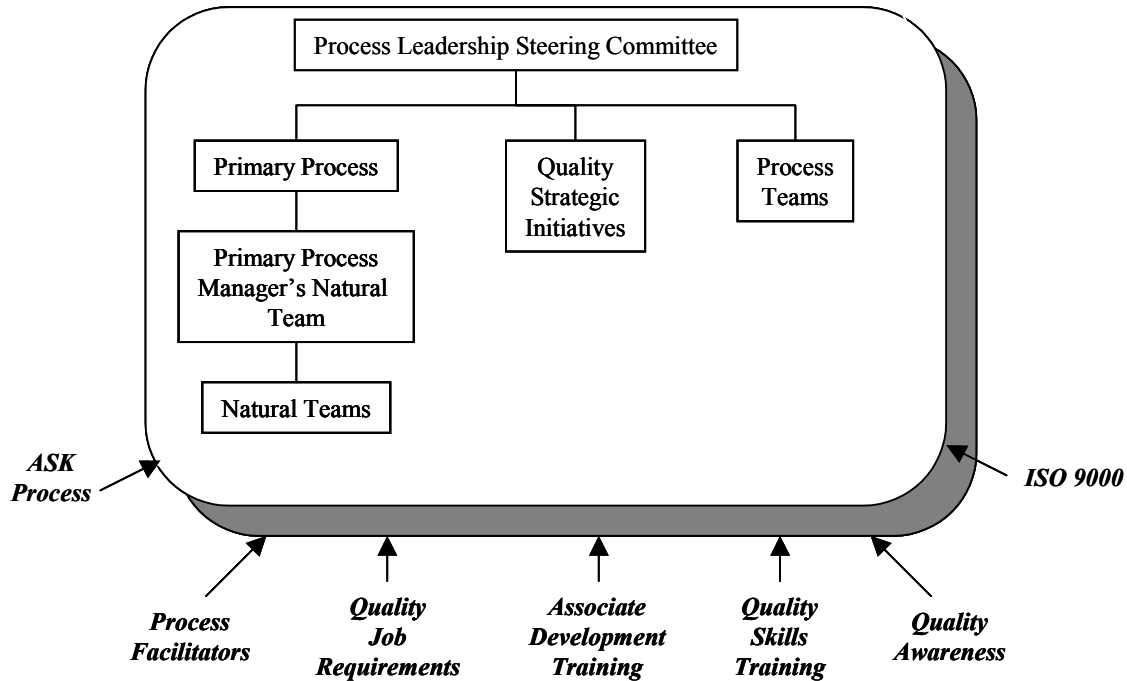
The model is never really completed. The steps must be revisited as new processes are developed or as existing processes are changed.

## **SUPPORTING STRUCTURE**

The structure for implementing Process Management is outlined in Figure 2. Successful Process Management requires the active integration of all aspects of the former "Quality" and "Business" systems. Quality teams, staff and department meetings, ISO Management Review and other activities are strategically organized and structured to facilitate effective communication and the active involvement of all associates. The model provides a single-focus strategy designed to support and realize the organization's vision.

**The Process Leadership Steering Committee (PLSC)** drives Process Management throughout the organization. Armed with a clear understanding of and a commitment to the organization's vision, The PLSC defines and implements the mission, strategy and structure and measures system results. The President, the primary process manager of DVS, leads the PLSC. Primary process managers make up the membership. Utilizing specific quality methods, the PLSC leads through a directed focus on those issues important to the short term and strategic direction of the company. The PLSC must meet on a regular basis, monthly at a minimum, and attendance must be mandatory for primary process managers. The PLSC will, at a minimum:

**Figure 2: Structure for Implementing Process Management**



- Develop and deploy the strategic plan based on the vision
- Manage the company
- Identify and remove constraints within the system
- Facilitate communication
- Oversee implementation of company-wide initiatives (ISO, Process Management, etc.)
- Develop organizational measures of performance that link the vision, mission, goals and day-to-day performance.

**Critical Note:** *The key to the entire system is effective, timely communication. If any part of the system breaks down, associates may begin to view the PLSC as the traditional, top down management approach rather than a system of associate involvement characterized by open communication, participation and recognition.*

**Natural Teams** are led by primary or secondary process managers and include all direct reports. Natural teams are responsible for communicating the output of the PLSC to the secondary process level. Each natural team develops its own mission, goals/objectives, action plans and measures to support the primary process mission. Natural teams meet on a regular basis and provide the channel for ongoing communication. The primary process manager reports the results the PLSC. Natural team and PLSC meeting agendas include the following topics:

- Focus Exercise or Quality Wins
- Review of Minutes and Action Steps from Previous Meeting
- Communication Items
  - PLSC/Natural Team Updates
- Performance Review by Primary and/or Secondary Process
  - Team Status

- Process Measures/Results
- Opportunities for Improvement
- Update of Action Item List
- Closure

**Quality Strategic Initiative (QSI) and Process Teams**, chartered by the PLSC and set up with a guidance team, facilitator, mission and model, drive continuous improvement. QSIs are long-term and cross-process teams. QSIs also serve as guidance teams for certain process teams. QSI 1's focus is external customer satisfaction. QSI 2 works with internal customer satisfaction. Process teams are generally short-term teams formed to solve a specific problem. A team process flow diagram and ongoing facilitation ensure that teams move toward their missions, know when the mission has been accomplished and the measures have been put in place. At this point, the team celebrates and closes the team.

**Process Facilitators** represent each primary process and meet monthly for training and team progress review. Facilitators are assigned to specific teams and to primary processes to assess the ongoing effectiveness of the teams and to assist the primary process managers in moving through the Process Management Model. Facilitators also provide coaching and feedback to team leaders and report on team effectiveness to the PLSC.

**Quality Job Requirements (QJR)** move the traditional job description to a Process Management tool by defining the Key Process Responsibilities (Task), Authority (Empowerment) and Performance Accountability (Results) and the Attitudes, Skills and Knowledge required for success. The QJR also outlines the required training, primary customers and suppliers and opportunities for the process position. The QJR is a useful tool for planning needed training and development, as well as for evaluating the effectiveness of the training plan.

**The ASK Process** is designed to improve associate/supervisor communication concerning the attitudes, skills and knowledge essential to manage primary, secondary and work processes within the company. The process was developed as a tool to allow associates and their supervisors to become partners focused on helping the associate to succeed. ASK reviews, conducted annually with follow-up meetings throughout the year, utilize multiple sources of feedback including the associate, supervisor and peers. Reviews help to identify areas of strength and areas for improvement and allow the supervisor and associate to jointly develop action plans to support personal growth and the company's mission.

**Training and Associate Development** is integral to the success of Process Management and a key component of the annual Quality Plan.

**Quality Skills Training (QST)**, required for all associates and held on a monthly basis, helps provide the antecedents necessary for success. QSTs are developed and taught by an internal Coordinator Team. Utilizing in-house and distance learning options, the 90-minute QSTs cover such topics as Organizational Vision, Mission, Goals and Objectives, The Cost of Doing Business, and Team Styles. Specifics of the Process Management Model—Identify, Document, Measure, Manage and Improve, are introduced and reinforced through QSTs. The organizational vision and mission are reviewed in every QST.

**Quality Awareness** is required for all associates. The three-day course, which is taught by internal trainers, provides an overview of the Industrial Distribution Group Quality System with a focus on both the process and people sides of quality. Team styles, SPC

tools, and team methods are introduced and taught in terms of practical application. Participants use the training on a regular basis in their individual processes.

**Associate Development Training** may include in-depth training for Process Managers on Process Management, product training, computer application training, or training based on needs identified through the ASK process. Company-wide training is planned and delivered by the MIC process as part of an ongoing Quality Plan. Process Managers identify training needs and opportunities for associate development. Aggregate and individual training needs are identified, and internal or external training sources are utilized to provide the best overall value. Membership in and training provided by professional organizations such as ASQ, APICS and NAPM are encouraged and supported by the company.

**ISO 9000** provides the basis for controlled documentation, the ongoing assessments necessary for a dynamic system and a measurement of the effectiveness of system elements. Trained ISO internal auditors systematically audit policy, procedures and/or work instructions developed to include the Process Management structure. Note: The ISO 9002 Quality model does not require all elements of Process Management. Adding the additional components and related documentation to the ISO based system is one part of Industrial Distribution Group's commitment to the goal of Process Management. This approach allows Industrial Distribution Group to further integrate the quality and business plans for total system results, although not necessarily for ease of application. In an initial ISO 9000 audit, the external auditor expressed surprise that an industrial distributor was so heavily involved in the training and use of statistical tools, as the requirement for such is generally the focus of a manufacturing operation. Statistical analysis allows Industrial Distribution Group to evaluate processes over time and to improve processes based on data, not on opinions or single data points.

## **BARRIERS TO SUCCESS**

Process Management is a dynamic system requiring not only top management support, but also active, day-to-day participation by the process managers. From the creation of the vision to the transformation of each process, management must commit significant time and resources to each element of the model. The time and resource commitment must be clearly outlined when selling the value of the model.

Once commitment is established, the next challenge is to integrate previously disjointed quality and business processes and systems into a single entity. Traditional department hierarchies and control are challenged as processes become more open and results of the process measures are communicated throughout all levels of the organization. All associates must develop the mentality of "looking at the process" rather than blaming people, a fundamental paradigm shift for many associates.

Effective communication to all levels of the organization is dependent on natural teams. Getting the buy in and ongoing commitment of all team leaders to meet on a regular schedule can be a challenge. Natural team leaders must be trained to effectively develop and deploy the team mission and measures, and to understand and communicate the business plan and results.

Changing organizational priorities are traditionally the biggest threat to a progressive, quality-based management system. As focus shifts to the "critical problem of the moment," resources required for Process Management success are challenged. It is the mission of the MIC Primary Process to continually reinforce the importance of Process Management to the strategic



success of the organization, using statistical tools to draw focus back to the short term and strategic improvements.

## **RESULTS**

Process Management has helped Industrial Distribution Group embed Quality throughout the entire organization and has provided an environment of shared leadership that supports the quality effort through associate training, motivation, and empowerment. Implementing the five-step model of Process Management has resulted in significant improvements in operational performance and participation in the quality process.

Improved communication throughout the company makes such topics as vision, goals and objectives, financial performance, and opportunities for improvement a part of everyday conversation. Again, external auditors routinely comment on the clear communication within the company.

Picking accuracy has improved from 99.59% to 99.87%, and the process manager reports that the process is in statistical control and capable of meeting standard. The next step: Transforming the process.

Service level of supplied product has increased 9.7% in the last twelve months. The process is in statistical control, meeting standard, and ready to move to step five of the model.

Team effectiveness has improved from 59.75% to 94.72%. Teams, trained in team methods, maintaining a clear plan to achieve the mission and knowing when to close the team, are much more likely to be productive over time.

Average days to close a customer complaint have improved by 19 days. Corrective Action is often a difficult process. Making customer complaints a part of the natural team and PLSC agendas ensures resolution and review of systemic problems.

Inventory effectiveness is the goal of QSI 4. Measures have been put in place, and most show improvement. For example, inventory gross margin return on investment has improved over 40%. Any measure not meeting standard has an improvement action plan in place.

Associate involvement in the quality process defined as associates involved in quality teams, actively using SPC and/or having made an improvement suggestion in the last three months, has increased from 56% to 87%. This process is also meeting the standard of 75% set by the MIC process.

## **CONCLUSIONS**

This paper has demonstrated how one company has generated continuous improvement using the systematic process we call Process Management. This process has led to improved operational performance, improved morale and increased participation in the quality process. This model has helped us blend quality with the business processes. It has taken quality to the next level where the tools and techniques of quality are being used on a daily basis to help the company move towards its vision. The five step model provides a clear roadmap for primary process managers to use. This model provides a focus on continual improvement over time and helps the managers move from a constant firefighting mode to a prevention based mode.

**Table 1: Primary and Secondary Processes**

<i>Understanding Markets and Customers (UMC)</i>	<i>Developing Vision and Strategy (DVS)</i>	<i>Selling and Customer Service (SCS)</i>	<i>Acquiring Materials and Supplies (AMS)</i>	<i>Managing Information Technology (MIT)</i>
Determining customers' needs and wants	Monitoring the external environment	Responding to customer inquiries	Evaluating and selecting suppliers	Planning for information systems and technology
Monitoring changes in market or customer expectations	Defining the business concept and organizational strategy	Taking and processing orders	Purchasing materials and supplies	Developing and deploying enterprise support systems
Marketing products or services to relevant customer segments	Designing the organization structure	Providing after-sales service	Acquiring and deploying appropriate technology	Implementing systems, security and controls
Providing technical support relevant to customer markets	Developing and setting organizational goals	Reconciling order exceptions	Managing supplier relationships	Supporting information systems and technology
Identifying and securing new suppliers		Improving customer processes	Managing inventory	Facilitating information sharing and storage retrieval
Negotiating and monitoring supplier participation		Managing customer segmentation	Providing internal customer services	Managing information and storage retrieval
		Measuring customer satisfaction		Managing facilities, network, operating systems and technology
<i>Managing Movement of Inventories and Making Deliveries (MID)</i>	<i>Managing Integrated Supply (MIS)</i>	<i>Developing and Managing Human Resources (DHR)</i>	<i>Managing Financial and Physical Resources (MFR)</i>	<i>Managing Quality Improvement and Change (MIC)</i>
Receiving/Stocking	Marketing and sales	Managing deployment of personnel	Managing financial resources	Developing and deploying the Quality Plan
Controlling inventory	Acquiring materials and supplies	Interpreting personnel policies	Processing finance and accounting transactions	Measuring organization performance
Picking material	Managing customer inventories	Ensuring associate well-being and satisfaction	Reporting financial information	Benchmarking performance
Shipping, delivery and pickup	Fulfilling customer requisitions	Managing worker's compensation claims	Managing the tax function	Improving processes and systems
Acquiring MID materials and supplies	Improving customer processes	Providing required basic safety training for all associates		Implementing TQM
Managing facilities and equipment	Implementing improvements	Developing and maintaining a human resource information system		Maintaining ISO 9000 registration and conducting quality assessments
		Complying with all government reporting		Training

		requirements		
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